

WHAT IS CLAIMED IS:

1. A method for communicating data in an interconnect system comprising a plurality of nodes, the method comprising:

issuing a command packet from a first node, the command
5 packet comprising a respective header quadword and at least one respective data quadword for conveying a command to a second node, wherein the command is selected from a group comprising a direct memory access (DMA) command, an administrative write command, a memory copy write command, and a built in self test (BIST) command;

10 receiving the command packet at the second node;

issuing an acknowledgement packet from the second node, the acknowledgement packet comprising a respective header quadword for conveying an acknowledgement that the command packet has been received at the second node.

15 2. A method for communicating data in an interconnect system comprising a plurality of nodes, each node having a respective memory comprising a plurality of lines, each line 20 of the same predetermined size, the method comprising:

providing new data for writing into a portion of a particular line of memory located at a local node;

reading out existing data from the particular line of memory located at the local node;

25 merging the new data with the existing data;

writing the merged data into the particular line of memory at the local node; and

transferring the merged data over a communication link to a remote node for writing into memory located at the remote
5 node.

3. The method of Claim 2 wherein transferring comprises issuing a memory copy write command over the communication link.

4. The method of Claim 2 wherein transferring comprises issuing a command packet from the local node to the remote node over the communication link, the command packet containing the merged data.

5. The method of Claim 2 further comprising writing the merged data into a corresponding line of memory at the remote node.

20 6. A method for communicating data in an interconnect system comprising a plurality of nodes, each node having a respective memory, the method comprising:

calculating the parity of a local block at a local node;
and

25 performing a direct memory access (DMA) operation to write the calculated parity to the memory of a remote node,

without previously writing the calculated parity to the memory of the local node.

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